UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,662	11/07/2002	Chih-Chung Lin	IEIP0002USA	8007

27765   7590   01/24/2007.

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EXAMINER
VILLECCO, JOHN M

ART UNIT	PAPER NUMBER
2622	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/24/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

	Application No.	Applicant(s)
Office Action Summary	10/065,662	LIN, CHIH-CHUNG
	Examiner	Art Unit
	John M. Villecco	2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _07 November 2002_.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-23_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-23_ is/are rejected.

7) ☒ Claim(s) _8,12,13 and 19_ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on _07 November 2002_ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a)

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All   b) ☐ Some * c) ☐ None of:

      1. ☒ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Drawings

1.   The drawings are objected to under 37 CFR 1.83(o). Suitable descriptive legends are required for proper understanding of the drawings. Therefore, the blank box with reference number 10 shown in Figure 2 should be labeled so the drawings can be properly understood.

Claim Objections

2.   Claims 8, 12, 13, and 19 are objected to because of the following informalities:

- In lines 5 and 6 of claim 8, applicant recites the limitation, "to generate a second signal corresponding to a first signal to a processor unit". This wording is unclear. A more appropriate wording would be -- to generate a second signal corresponding to a first signal *to be sent* to a processor unit --.

- In lines 1 and 2 of claim 12, applicant recites the limitation, "wherein the third memory is electrically connected to the first memory". This appears to be a typographical error, since the third memory is not connected to the first memory. A more appropriate wording would be - wherein the third memory is electrically connected to the first *processor* --.

- In lines 2 and 3 of claim 13, applicant recites the limitation, "generate a third signal to the first processor". This wording is unclear. A more appropriate wording would be -- generate a third signal *to be sent* to the first processor .

- In lines 2 and 3 of claim 19, applicant recites the limitation, "to transmit the

    digital signals of images back the remote computer". This wording is unclear. A

    more appropriate wording would be -- to transmit the digital signals of images to

    the remote computer --.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4.   Claim 7 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the

enablement requirement. The claim(s) contains subject matter which was not described in the

specification in such a way as to enable one skilled in the art to which it pertains, or with which

it is most nearly connected, to make and/or use the invention. More specifically, applicant

claims that the flash is controlled according to signals transmitted from the first memory.

However, these claims are non-enabled of ordinary skill in the art at the time the invention was

made would not have been enable to make and/or use the invention given the teachings of the

specification. The first memory is discussed on page 4, lines 2-4 and the flash is discussed on

page 4, lines 14-16 and page 5, lines 23-28. However, the examiner can find no discussion of

how the flash is controlled using signals from the first memory. The specification contains no

description of the contents of the memory or how the first processor can control the flash based

on signals transmitted from the first memory.

Claim Rejections - 35 USC § 102

5.	The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6.	**Claims 8-10, 13-17, 19, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Endsley et al. (U.S. Patent No. 6,005,613).**

7.	Regarding *claim 8*, Endsley discloses a camera with a computer interface which is used in capturing an image and transferring it to the computer for viewing. More specifically, Endsley discloses a camera (10) controllable by the computer (12). The computer (12) operates to generate a first signal (i.e. when to take a picture, setting the exposure time and gain (col. 4, lines 60-65)) and sends it to the camera (10) via USB packets (col. 4, lines 1-48). In the camera, the signal is received by the USB device interface (40), wherein a second signal is inherently sent to a processing unit (microprocessor (38), CCD timing generator (32), CCD clock drivers (28), and line store timing generator (36)). The second signal is the interpreted USB signal, which was converted for processing by the processing unit. The processing unit then uses the input from the computer (12) to control the image-capturing module (lens (18), imager (20), gain and CDS (24) and A/D converter (26)) to process digital signals of images. The camera (10) sends real-time images to the computer (12) when in the continuous mode (col. 6, lines 45-55).

8.   As for *claim 9*, Endsley discloses that the image-capturing module (imager (20), gain and CDS (24) and A/D converter (26)) transforms the images into digital signals via the A/D converter (26).

9.   With regard to *claim 10*, Endsley discloses that the processing unit consists of a first and second processor. The first processor is interpreted by the examiner to be the CCD timing generator (32) and the second processor is interpreted by the examiner to be the microprocessor (38).

10.   Regarding *claim 13*, Endsley discloses that the microprocessor (38) receives the signal from the USB interface (40) and controls the operation of the camera. In Figure 1, the microprocessor (38) sends a signal to the CCD timing generator (32, second processor), wherein the timing and the reading of the image sensor is controlled via the CCD clock drivers (28). See column 3, lines 38-43. This signal is interpreted to be the third signal.

11.   As for *claim 14*, Endsley discloses that the microprocessor includes camera registers (72) to store the different camera settings transferred from the computer. See column 5, lines 4-10. The camera registers are interpreted to be the second memory.

12.   With regard to *claim 15*, Endsley discloses that the network controller (USB interface, 40) is electrically connected to the second processor (microprocessor, 38) for receiving the first signals from the external network (computer, 12).

13.   Regarding *claim 16*, Endsley discloses that the CCD timing generator (32) controls the operation of the imager (20) with the third signal, by generating timing signals for the CCD imager.

14.   As for *claim 17*, Endsley discloses that the image-capturing module includes a lens (18). A CCD imager inherently includes a plurality of light-sensing cells for receiving the light from the lens. Thus, Endsley discloses a plurality of light-sensing cells for receiving the light from the lens, by the disclosure of the CCD imager.

15.   With regard to *claim 19*, the processor unit (microprocessor (38), CCD timing generator (32), CCD clock drivers (28), and line store timing generator (36)) controls the image capturing module (lens (18), imager (20), gain and CDS (24) and A/D converter (26)) to transmit the digital images back to the remote computer via the network for displaying in real time. See column 6, lines 35-65.

16.   Regarding *claim 20*, Endsley discloses that the digital images are sent to an external receiving terminal via the network. In this case the computer (12) is considered the external receiving terminal. Furthermore, Endsley discloses that the computer can send the images to another computer in a teleconferencing mode. See column 3, lines 17-21. Thus, the images are inherently transferred over a network to an external receiving terminal.

Claim Rejections - 35 USC § 103

17.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

18.   **Claims 1, 2, 4, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Endsley et al. (U.S. Patent No. 6,005,613) in view of Tashiro et al. (U.S. Patent No. 6,873,366).**

19.   Regarding *claim 11*, as mentioned above in the discussion of claim 10. Endsley discloses all of the limitations of the parent claim. However, Endsley fails to explicitly disclose a first memory connected to the first processor for storing data and program codes of the first processor. Tashiro, on the other hand, discloses that it is well known in the art to provide a memory in a CCD timing generator to storing data and program codes. More specifically. Tashiro discloses an external ROM (70) for storing data and program codes for controlling the timing generator (14). This ROM stores edge data and time-series data that the timing generator (14) uses to adjusting the timing. This arrangement allows for storing different waveforms for driving the CCD. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a first memory connected to the first processor for storing CCD timing data for controlling the imager so that multiple waveforms and timing configurations can be stored.

20.   As for *claim 12*. Endsley discloses the use of a static RAM memory (34) connected to the first processor (line store timing generator (36) for storing the digital images. See column 3, lines 44-45.

21.   With regard to *claim 1*. Endsley discloses a camera with a computer interface which is used in capturing an image and transferring it to the computer for viewing. More specifically. Endsley discloses an image capturing module (lens (18), imager (20), gain and CDS (24) and A/D converter (26) for capturing an image and transforming it to a digital image, a first

processor (CCD timing generator (32), CCD clock drivers (28), and line store timing generator

(36)) for controlling operation of the image capture module, a second processor (microprocessor

(38)) for receiving operation signals to control operation of the image capturing module, a

second memory (camera registers (72)) for storing data a program codes of the second processor,

and a network controller (USB interface (40) for receiving signals transmitted from an external

network. The computer (12) operates to generate a first signal (i.e. when to take a picture,

setting the exposure time and gain (col. 4, lines 60-65)) and sends it to the camera (10) via USB

packets (col. 4, lines 1-48). In the camera, the signal is received by the USB device interface

(40), wherein a second signal is inherently sent to the second processor (microprocessor (38)).

The second signal is the interpreted USB signal, which was converted for processing by the

processing unit. The second processor controls the operation of the first processor (CCD timing

generator (32), CCD clock drivers (28), and line store timing generator (36)) by sending signals

for controlling the image capture module. The camera (10) sends real-time images to the

computer (12) when in the continuous mode (col. 6, lines 45-55).

Endsley, however, fails to explicitly disclose a first memory electrically connected to the

first processor for storing data and program codes of the first processor. Tashiro, on the other

hand, discloses that it is well known in the art to provide a memory in a CCD timing generator to

storing data and program codes. More specifically, Tashiro discloses an external ROM (70) for

storing data and program codes for controlling the timing generator (14). This ROM stores edge

data and time-series data that the timing generator (14) uses to adjusting the timing. This

arrangement allows for storing different waveforms for driving the CCD. Therefore, it would

have been obvious to one of ordinary skill in the art at the time the invention was made to

include a first memory connected to the first processor for storing CCD timing data for controlling the imager so that multiple waveforms and timing configurations can be stored.

22.   Regarding *claim 2*. Endsley discloses that the image-capturing module includes a lens (18). A CCD imager inherently includes a plurality of light-sensing cells for receiving the light from the lens. Thus, Endsley discloses a plurality of light-sensing cells for receiving the light from the lens, by the disclosure of the CCD imager.

23.   As for *claim 4*. Endsley discloses that the digital images are sent to an external receiving terminal via the network. In this case the computer (12) is considered the external receiving terminal. Furthermore, Endsley discloses that the computer can send the images to another computer in a teleconferencing mode. See column 3, lines 17-21. Thus, the images are inherently transferred over a network to an external receiving terminal.

24.   **Claims 18, 21, and 23 are is rejected under 35 U.S.C. 103(a) as being unpatentable over Endsley et al. (U.S. Patent No. 6,005,613) in view of Fukuoka (U.S. Patent No. 5,754,227).**

25.   Regarding *claim 18*, as mentioned above in the discussion of claim 8. Endsley discloses all of the limitations of the parent claim. However, Endsley fails to explicitly disclose that the external network is a wireless, Internet, or local area network. Fukuoka, on the other hand, discloses that it is well known in the art to control a camera via a local area network. More specifically Fukuoka discloses a camera (30) that is controlled by computer (33). The camera and computer can be connected via a LAN card over a LAN network. See column 4, line 41 and col. 7, line 15. By connecting the camera to the computer via a LAN, a plurality of cameras can

be connected via a single communication line. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to connect the camera of Endsley to the computer via a LAN so that a plurality of camera can be controlled by the computer.

26.   As for *claim 21*, as mentioned above in the discussion of claim 20, Endsley discloses all of the limitations of the parent claim. However, Endsley fails to explicitly disclose that the external receiving terminal is a file server or a net working storage. Fukuoka, on the other hand, discloses that the camera can be connected to a service provider, where it is stored for retrieval by a user who has access. See col. 3, lines 55-67. This allows for a user to have remote access to the images captured by the camera via the internet. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to allow the camera of Endsley to send the images to a networking storage so that a remote user can have access to images captured by the camera via the internet for remote viewing.

27.   With regard to *claim 23*, as mentioned above in the discussion of claim 8, Endsley discloses all of the limitations of the parent claim. However, Endsley fails to explicitly disclose that the processing unit controls a flash controller to adjust the flash of the image-capturing module. Fukuoka, on the other hand, discloses that it is well known in the art to remotely control the flash of a camera via an external computer. More specifically, in column 10, lines 56-57 Fukuoka discloses that the flash (20) can be remotely controlled via the computer. One of ordinary skill in the art would recognize that by controlling a flash, the user can control the amount of light used in the image pickup process. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to allow the camera of Endsley to

be remotely controlled so as to control a flash in the camera, so that appropriate lighting can be set by the user.

28.   **Claims 3, 5-7, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Endsley et al. (U.S. Patent No. 6,005,613) in view of Tashiro et al. (U.S. Patent No. 6,873,366) and further in view of Fukuoka (U.S. Patent No. 5,754,227).**

29.   Regarding *claim 22*, as mentioned above in the discussion of claim 12, the combination of Endsley and Tashiro discloses all of the limitations of the parent claim. However, neither of the aforementioned references specifically discloses that the memory is compact flash card. Fukuoka, on the other hand, discloses that it is well known in the art to have a memory be a compact flash card. More specifically, Fukuoka discloses that the memory card (16) is a flash memory card. This type of memory card allows for easy transfer of images and sound to a personal computer. See col. 3, lines 35-42. Therefore, it would have been obvious to one of ordinary skill in the art to store the images captured by Endsley in a compact flash memory so that the images can easily be transferred to a computer.

30.   As for *claim 3*, as mentioned above in the discussion of claim 1, the combination of Endsley and Tashiro discloses all of the limitations of the parent claim. However, neither of the aforementioned references specifically discloses that the external network is a wireless, internet, or local area network. Fukuoka, on the other hand, discloses that it is well known in the art to control a camera via a local area network. More specifically Fukuoka discloses a camera (30) that is controlled by computer (33). The camera and computer can be connected via a LAN card over a LAN network. See column 4, line 41 and col. 7, line 15. By connecting the camera to the

computer via a LAN. a plurality of cameras can be connected via a single communication line. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to connect the camera of Endsley to the computer via a LAN so that a plurality of camera can be controlled by the computer.

31.   With regard to *claim 5*, as mentioned above in the discussion of claim 4, the combination of Endsley and Tashiro discloses all of the limitations of the parent claim. However, neither of the aforementioned references specifically discloses that the external receiving terminal is a file server or a net working storage. Fukuoka, on the other hand, discloses that the camera can be connected to a service provider, where it is stored for retrieval by a user who has access. See col. 3. lines 55-67. This allows for a user to have remote access to the images captured by the camera via the internet. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to allow the camera of Endsley to send the images to a networking storage so that a remote user can have access to images captured by the camera via the internet for remote viewing.

32.   Regarding *claim 6*, as mentioned above in the discussion of claim 1, the combination of Endsley and Tashiro discloses all of the limitations of the parent claim. However, neither of the aforementioned references specifically discloses that the memory is compact flash card. Fukuoka, on the other hand, discloses that it is well-known in the art to have a memory be a compact flash card. More specifically, Fukuoka discloses that the memory card (16) is a flash memory card. This type of memory card allows for easy transfer of images and sound to a personal computer. See col. 3. lines 35-42. Additionally, Fukuoka discloses Therefore. it would have been obvious to one of ordinary skill in the art to store the images captured by Endsley in a

compact flash memory so that the images can easily be transferred to a computer. Furthermore.

by providing both a flash memory and a transmission medium in the camera of Endsley, the

camera can be used as a standalone camera.

33.   As for *claim 7*, as mentioned above in the discussion of claim 1, the combination of

Endsley and Tashiro discloses all of the limitations of the parent claim. However, neither of the

aforementioned references specifically discloses that the processing unit controls a flash

controller to adjust the flash of the image-capturing module. Fukuoka, on the other hand,

discloses that it is well known in the art to remotely control the flash of a camera via an external

computer. More specifically, in column 10, lines 56-57 Fukuoka discloses that the flash (20) can

be remotely controlled via the computer. One of ordinary skill in the art would recognize that by

controlling a flash, the user can control the amount of light used in the image pickup process.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention

was made to allow the camera of Endsley to be remotely controlled so as to control a flash in the

camera, so that appropriate lighting can be set by the user.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to John M. Villecco whose telephone number is (571) 272-7319.

The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

John M. Villecco
January 15, 2007